

*Science, Service, Stewardship*



# ENVIRONMENTAL PLANNING TODAY FOR FUTURE EMERGENCIES

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**NOAA  
FISHERIES  
SERVICE**



## COMMITMENT TO CONSENSUS BUILDING

- Agreement among agencies, users and stakeholders to achieve a path forward
- Will require collaborative, cooperative working relations among all the agencies and groups involved
- Understanding that each agency has its own authorization and appropriation for projects that need to be collectively integrated in the path forward
- Collaborative relationships are needed with user groups and stakeholders and NGOs. They also have interests that need to be integrated



## INTERDISCIPLINARY TEAMS FOR THE PROJECT'S LIFE

- The 3 E's – Engineering, Environmental and Economics
- Engineers – Civil, Hydrologists, Geotechnical
- Biologists with local knowledge of biota and habitat needs, outside experts
- Coastal Geologists - address RSM and sea level rise issues
- Good cost estimators
- Public relations



## ENGAGING USERS AND STAKEHOLDERS

- Identify all significant user groups and stakeholders
- Offer to go to their regular meetings
- Where possible, try to limit to 20 or less members to get meaningful input
- Listen to their concerns and suggestions and where possible use this information in planning
- Follow up as plan is formulated to let them know how their issues and suggestions were used or give them the rationale why they were not – ENGAGE them



## CHALLENGE – MANAGING EXPECTATIONS

- Communication of real limits to engineering, science, technology and funding that affect the ability to construct and adapt
- Risk communication is critical in creating transparency (trust) in decisions before and after an emergency
- Public agencies, user groups and stakeholders will likely need different levels of information
- Emphasize the need to FUND a good Public Relations Plan to communicate risk and engage interest groups



## ADAPTIVE MANAGEMENT

- Don't pigeon hole your project – Federal Standard vs. Local Sponsor responsibilities
- FUND monitoring of changes that occur over time
- Compare the project's benefits and impacts from the changes
- Refine, modify, and adapt the project as needed to ensure project benefits
- Caveate – Could increase project costs, but with overall benefits, especially during emergencies



## ADAPTIVE MANAGEMENT

- Embrace new tools (e.g., GIS, models, etc.) and science as they emerge over the project's life
- Periodically utilize science and engineering based assessments to analyze project
- Implement operational changes, if project deficiencies are found
- Endless cycle of: 1) monitor; 2) assess; 3) evaluate; 4) communicate; 5) formulate and 6) revisions



## SUSTAINABILITY

- Process should be flexible enough to provide for long term sustainability – 3E's
- Sea level rise vs. sediment supply
- Systems approach – ecological, geological (regional sediment budgets, landscape position, etc.) and hydrological
- Plan for potential emergency dredging from periodic floods or hurricanes





# QUESTIONS?